BEFORE THE
PUBLIC SERVICE COMMISSION OF WISCONSIN

Application of Milwaukee Water Works, Milwaukee County, Wisconsin, for Authority to Increase Water Rates — 3720-WR-108

INITIAL BRIEF OF THE MILWAUKEE WATER WORKS IN SUPPORT OF WATER RATE ADJUSTMENT

INTRODUCTION

Milwaukee Water Works ("MWW") applied for a water rate adjustment to address the immediate and long-term financial stability of the utility. MWW resolved to approach the rate adjustment in a fair and unbiased manner to produce a result that would be equitable to all ratepayers. MWW sought a rate of return that would allow for increased investment in infrastructure. The proposed rate of return addresses these needs while MWW's rates remain competitive both regionally and nationally.

MWW's application was contested by several of MWW's wholesale customers ("Wholesale Customers"). MillerCoors, LLC ("MillerCoors") also intervened in the proceeding. In addition, PSC staff submitted testimony and exhibits.

The intervenors raised five issues that have been the focus of this rate case proceeding: (1) customer demand ratios; (2) public fire protection; (3) rate of return differential; (4) transmission and distribution allocation; and (5) reasonableness of the proposed rate of return. Other than the issue relating to MWW's proposed rate of return, the issues in dispute concern the allocation of the proposed rate increase among MWW's retail and wholesale customers.

DISCUSSION

I. MWW's PROPOSED CUSTOMER DEMAND FACTORS ARE REASONABLE.

The Customer Demand Study, Ex.-MWW-Cramer-2, addresses the significant gap in reliable customer demand data identified in MWW's last rate case, Docket 3720-WR-107. The Customer Demand Study contains a robust set of data on customer consumption that far better reflects present, actual usage of MWW's customers, allowing for a more accurate allocation of costs between the various customer classes. In contrast, the Wholesale Customers argue that the Commission should simply continue to allocate costs according to factors that were based on faulty assumptions and outdated and inaccurate data. PSC Staff has concluded that "the demand ratios developed in the Customer Demand Study better reflect the present day water use patterns of a large and diverse customer base than do those used in the last rate case…" and that there is "sufficient evidence to indicate that a departure from customer demand ratios used in the last rate case is justified." (Surrebuttal-PSC-Denise Schmidt-2).

A. The Customer Demand Study Addresses the Need for Actual Demand Data.

To address a significant data gap identified in MWW's last rate case, MWW engaged Trilogy Consulting, LLC ("Trilogy") in 2012 to design and conduct a study to gather and analyze data for the purpose of updating customer class demand ratios. (Direct-MWW-Lewis-6). The customer demand ratios used in the 2009-2011 rate case were the same as those used in MWW's 2007 rate case, which were "virtually unchanged from those used in Docket No. 3720-WR-101 in 1990." (Direct-MWW-Lewis-5; PSC REF#: 144469, at 13).

Andrew Behm, while a member of PSC staff and tasked with preparing the cost of service study in the 2009-11 rate case, proposed revised customer class demand factors. (Surrebuttal-MWW-Cramer-7-10). Mr. Behm concluded that "The retail max hour extra-

capacity ratios used in the previous rate case do not accurately describe MWW's customer classes in this case." (Surrebuttal-MWW-Cramer-8; Ex.-MWW-Cramer-13). With regard to the max hour demand factors for retail customers, Mr. Behm testified:

> Given the dramatic changes MWW has experienced in its customer base over the last decade, it would have been unrealistic to continue using extra-capacity ratios calculated in 1990. In the absence of actual demand data, I reviewed recent cost of service studies for other large wholesaling utilities as described on page D12.17 of my direct testimony.

(Surrebuttal-MWW-Cramer-8; Ex.-MWW-Cramer-14).

Mr. Behm recognized that retail max hour demand ratios were too high and recommended that they be reduced but lacked any data to support that recommendation. (Surrebuttal-MWW-Cramer-7). In the absence of maximum hourly consumption data by class, Mr. Behm reviewed the retail max hour extra capacity ratios used in the most recent rate cases of several other large utilities providing wholesale service in Wisconsin: Racine, Oak Creek, Kenosha, Menasha, Appleton, Sheboygan, and Beloit. Mr. Behm proposed to reduce the retail max hour ratios based upon the values used in those other rate cases. (Ex.-MWW-Cramer-13). The Commission ultimately rejected Mr. Behm's proposal to revise the customer demand factors because Mr. Behm's proposed revisions were not based on specific MWW data, finding:

> The Commission agrees that MWW is unique compared to other water utilities in Wisconsin. It is more reasonable to determine customer class demand ratios for MWW from information specific to MWW then from a comparison to other utilities. Accordingly, the Commission finds it reasonable to retain the previous max hour customer demand ratios until MWW is able to provide better data on maximum hour demand.

(PSC REF#: 144469, at 13).

The 2009-11 rate case was the first rate case in which the Commission examined each of MWW's wholesale customers' max demand ratios on an individual basis, however, there was

very limited data available to PSC staff to determine water use patterns for each individual utility. (Direct-MWW-Lewis-5). Mr. Behm explained his proposed provisions to the wholesale customer max hour factors, which were adopted by the Commission, as follows:

> No historical data is available for wholesale max hour extra-capacity ratios. Based on the review of the rate cases mentioned above, I estimated the ratio of maximum hour consumption to average hour consumption for each wholesale customer to be 1.43 times its ratio of maximum day consumption to average day consumption.

The Customer Demand Study's data set for the wholesale customer class is very robust, containing hourly readings for an 18-month period for all wholesale customers except Shorewood and Milwaukee County institutions. (Surrebuttal-MWW-Cramer-10). The wholesale data includes both a very hot, dry summer in 2012 and a very cool, wet summer in 2013. (Rebuttal-MWW-Granum-4-7). MWW collected and analyzed over a million points of data from wholesale customers and all retail customer classes (including both large and small retail customers) during 2012 and 2013. (Surrebuttal-MWW-Cramer-11). Through the Customer Demand Study, MWW has provided new information and proposed customer demand factors based on hourly data on wholesale customers and a representative sample of customers from each retail customer class, which included hourly demand data for large retail customers. (Surrebuttal-MWW-Granum-3). The data that has been collected and analyzed for the retail classes provides a reasonable basis for the class-specific demand factors utilized in MWW's Cost of Service Study. ("COSS") (Ex.-MWW-Wright-2, Schedule 9).

B. <u>The Wholesale Customers' Alternative Lacks a Factual Basis.</u>

The Wholesale Customers spent considerable effort attacking the demand factors for the retail and wholesale customer classes because, in general, the Customer Demand Study, based on the results of data analysis, proposes to increase the peak demand factors for the majority of

wholesale customer classes. (Rebuttal-MWW-Granum-2). The Wholesale Customers have staked out the unreasonable claim that the Customer Demand Study should be disregarded in favor of the same methods used in the last rate case.

Finding that there is "sufficient evidence to indicate that a departure from customer demand ratios used in the last rate case is justified[,]" PSC staff witness Denise Schmidt concluded that the Wholesale Customers' position that the results of the Customer Demand Study should be discarded is "fallacious". (Surrebuttal-PSC-Schmidt-2). PSC Staff was not convinced by the Wholesale Customers' argument (Surrebuttal-PSC-Schmidt-2) and neither should the Commission.

The Wholesale Customers' proposed alternatives are unreasonable. With regard to the wholesale customer classes, the Wholesale Customers argue that the demand factors should not be based on the continuous hourly meter reading data for each wholesale customer's connection point to the MWW system for most of 2013 and much of 2012, but that they instead should be based on the same method as the last rate case. (Surrebuttal-MWW-Cramer-2). While MWW has proposed customer demand factors based on actual hourly data collected and analyzed, the Wholesale Customers rely on outdated assumptions, which the data show are not accurate. (Rebuttal-MWW-Granum-8).

Mr. Planton argues that the wholesale customers' max hour demand factor should be based on the customers' max day factor multiplied by 1.43, which was the method used in the 2009-11 rate case. (Direct-Wholesale Customers-Planton-12). However, it is inappropriate to continue to use this methodology because MWW has now conducted a study that uses actual measured hourly water usage for wholesale customers. As shown in Ex.-MWW-Granum-9r, the method proposed by the Wholesale Customers is based on a faulty assumption because the

relationship between the max hour demand ratio and the max day demand ratio for wholesale customers varies widely both by customer and by time period for each customer. (Rebuttal-MWW-Granum-9). In addition, the 1.43 figure derived by Mr. Behm in the 2009-11 rate case is too low for most of the wholesale customers, which is not surprising given that Mr. Behm's methodology was based on his review of rate cases involving other utilities. (Rebuttal-MWW-Granum-9; Ex.-MWW-Granum-8). Further, continued reliance on Mr. Behm's estimates and assumptions is inconsistent with the Commission's determination in the 2009-11 rate case that "MWW is unique compared to other water utilities in Wisconsin. It is more reasonable to determine customer class demand ratios for MWW from information specific to MWW than from a comparison to other utilities." (PSC REF#: 144469, at 13).

The Wholesale Customers argue that their max day demand factors should be based on 6-year averages of their internal water pumping records from PSC annual reports. However, it is inappropriate to use this methodology for several reasons. The purpose of establishing demand factors is to allocate max day demand costs based on the demands customers place on the MWW system. Two of the wholesale customers, Menomonee Falls and Mequon, receive a portion of their water supply from other sources, so PSC reports do not reflect water use directly purchased from MWW. They also do not address the lack of information for Shorewood or Milwaukee County Institutions in any way. They also use the arbitrary calendar year to determine max day demand factors, the flaws of which are demonstrated by the Customer Demand Study. (Rebuttal-MWW-Granum-4).

For the retail customer classes, the Wholesale Customers argue that the Commission should use the same ratios used in the 2009-11 rate case, which were based on a 1977 study prepared by Black & Veatch ("1977 Study"). Rather than rely on actual data gathered over the

last two years, the Wholesale Customers ask the Commission to base current customer peaking factors on a study done in 1977, a year in which MWW sold 54.7 billion gallons of water, compared to, for example, 2010's 32.4 billion gallons. (Direct-MWW-Lewis-5). While Mr. Behm could not convince the Commission to adopt his proposed revisions to the retail customer class ratios in the absence of any actual data, his conclusion that it is unrealistic to continue to rely on this outdated study was correct. Now, however, MWW has this data and the continued use of retail customer class demand factors from a nearly 40-year old study is unreasonable.

In addition, Ms. Cramer identified several major problems with the 1977 Study. First, and foremost, the age of the data makes it unreasonable to determine factors for retail classes relative to wholesale customers. (Surrebuttal-MWW-Cramer-3). Further, the 1977 Study collected much more limited data from the sampled retail customers and used a fundamentally flawed methodology. (Surrebuttal-MWW-Cramer-3-6; Hearing Transcript ("Tr.") Volume ("Vol.") 2, at 42).

Ms. Schmidt also testified that it is more reasonable to rely on the Customer Demand Study than the 1977 Study. Ms. Schmidt testified that, based on her understanding of recent trends in customer demand and retail sales, the Customer Demand Study's demand ratios are more representative of observed trends than the ratios derived from the 1977 Study. (Tr. Vol. 2, at 156). Ms. Schmidt concluded that:

> …[I]t is not unreasonable to conclude that the demand ratios developed in the Customer Demand Study better reflect the present day water use patterns of a large and diverse customer base than do those in the last rate case, and that some revision in those demand ratios is appropriate.

(Surrebuttal-PSC-Schmidt-2).

C. The Customer Demand Study Withstands the Specific Criticisms Made by the Wholesale Customers.

1. The Sample Size Is Sufficient.

The Wholesale Customers criticized the Customer Demand Study on the basis that the residential sample was too small. However, the Wholesale Customers' witnesses provide no credible estimate for an appropriate sample size or distribution. (Tr. Vol. 2, at 140-142). This is not surprising given the fact that neither Mr. Rothstein nor Mr. Planton, the Wholesale Customers' key witnesses attacking the Customer Demand Study, have ever performed a customer demand study to apportion costs based upon current use for purposes of allocating costs in a rate case. (Tr. Vol. 2, at 136, 143-44).

Moreover, Exs.-MWW-Cramer-3 to 10 effectively demonstrate that a larger retail sample size would, if anything, lead to a slightly *lower* peaking factor for the retail customers. (Rebuttal-MWW-Cramer-3, 8). Ms. Schmidt agreed that Exs.-MWW-Cramer-3 through 10 "support [Ms. Cramer's] assertion that adding more customers to the samples has a minimal impact on both maximum day and maximum hour ratios." (Surrebuttal-PSC-Denise Schmidt-1-2). Ms. Schmidt concluded that any number above 30 customers could be representative. (Tr. Vol. 2, at 164).

As Mr. Granum testified, it does not matter which geographic areas the residents are from because as more customers are added to the sample there is very little variability of peak demand ratios of the class as a whole. (Tr. Vol. 2, at 48). Nonetheless, the 185 residential customers selected in the sample are from all twelve of the selected MWW meter reading routes located throughout the retail service area. (Ex.-MWW-Lewis-27; Ex.-MWW-Cramer-19).

2. The Sample Period Is Sufficient.

The Wholesale Customers' criticism that the Customer Demand Study's sample period for retail customers relies more on 2013 data while the sample period for wholesale customers is mostly in 2012, and that therefore the factors calculated for the retail customer classes are not comparable to those for the wholesale customers, is refuted by the evidence in the record. (Surrebuttal-MWW-Cramer-11). Ms. Schmidt, based on her observation of overall trends in customer demand and retail sales, concurs with Ms. Cramer. (Tr. Vol. 2, at 156-57):

> And in looking – in examining those residential sales, it's pretty clear in the Milwaukee retail area that residential per meter sales have been pretty steady with slight decline; but even…in the extreme weather years, the 2012, 2013, not much variation. This would seem to indicate a reduction in the peak demand ratios is merited and that the direction indicated in the demand study is not unreasonable to take in account in considering cost of – in the cost of service study.

(Tr. Vol. 2, at 157).

Based on her review of annual customer demand data, both statewide and in the Milwaukee service area, Ms. Schmidt drew several important conclusions: (1) Milwaukee's retail residential demand was not particularly high in 2012 compared to 2011 and compared to 2013. (Tr. Vol. 2, at 159); and (2) that Milwaukee's retail residential customer class was "not particularly peaky." (*Id.* at 160). As a result, Ms. Schmidt's analysis refutes the Wholesale Customers' argument that the different sample periods used for retail and wholesale customers somehow affects the validity of the Customer Demand Study. (Tr. Vol. 2, at 160).

Moreover, the timeframe of sampling data used to determine peak demand ratios for different customer classes does not need to be identical because the demand factors are non-coincident and established independently of one another. (Surrebuttal-MWW-Granum-1). Nevertheless, the retail factors do take into consideration 2012 data by applying a seasonal

peaking factor to the figures obtained during the sample period based on an average of peak season to average day ratios that includes 2012 data. (Tr. Vol. 2, at 37; Tr. Vol. 2, at 166).

The customer demand factors proposed in MWW's Cost of Service Study were developed using a robust set of data and reflect the actual data collected. In contrast, the Wholesale Customers' proposed demand factors are based on assumptions that ignore actual data and rely on outdated information that does not reflect current water demand characteristics.

II. IT IS REASONABLE TO CONTINUE TO ALLOCATE PUBLIC FIRE PROTECTION COSTS TO THE WHOLESALE CUSTOMERS.

In its COSS, MWW allocates public fire protection costs between retail and wholesale customers using the same methodology as used in MWW's last full rate case, Docket 3720-WR-107. (Direct-MWW-Wright-5). The Wholesale Customers argue that they should not pay for any public fire protection costs. (Direct-Wholesale Customers-Behm-3-5). MillerCoors disagrees with the Wholesale Customers' position. (Rebuttal-MillerCoors-Hanser-6).

It is important to note at the outset that the Wholesale Customers are allocated no direct public fire protection costs, which are comprised primarily of hydrant costs. (Ex.-MWW-Wright-2, Sch. 11A). As Mr. Hanser noted, the Wholesale Customers are not charged any public fire protection costs related to the distribution system. (Rebuttal-MWW-Wright-4; Rebuttal-MillerCoors-Hanser-6). The Wholesale Customers are not allocated any extra-capacity public fire protection costs related to storage if they have their own storage facilities. (Rebuttal-MWW-Wright-4). All of these costs are instead allocated to MWW's retail customers.

The Wholesale Customers, both pursuant to the rates currently in effect, and under the rates proposed in the COSS, are allocated only a share of the public fire protection costs related to system base, maximum day extra capacity, and maximum hour extra capacity costs. (Ex-

MWW-Wright-2, Sch. 11A). Nonetheless, the Wholesale Customers argue that they should not have to pay even this share of the costs to provide public fire protection.

A. MWW Has Incurred Costs to Make Fire Protection Capability Available to the Wholesale Customers.

As discussed below, the Wholesale Customers devote a substantial portion of their argument to their assertion that they have their own storage and do not need MWW's capacity. This ignores the benefits that the Wholesale Customers receive from MWW's investments in its capacity as well as the costs incurred by MWW, regardless of the amount of the wholesale customer's storage. MWW could run the system at lower cost if it was not devoting assets and resources to have the ability to serve the Wholesale Customers with public fire protection. (Surrebuttal-MWW-Lewis-4-5; Tr. Vol. 2, at 56-58).

As Mr. Pauly explained, even using Mr. Planton's calculations in Ex.-Wholesale Customers-Planton-6, the Wholesale Customers rely on supplementary water from MWW in response to a fire flow condition. (Tr. Vol. 2, at 185). Accordingly, in each of the examples provided by the Wholesale Customer (Direct-Wholesale Customers-Kaempfer-4 *et seq.*), Mr. Kaempfer states that in response to a fire flow condition, the tank levels would drop and the wholesale customer would either open a control valve or turn on a pump; in all cases, the wholesale customer would withdraw water from MWW's system. (Tr. Vol. 2, at 185; Rebuttal-MWW-Pauly-4).

The Wholesale Customers benefit from MWW's investment in its capacity to provide this essential public safety function and should pay for this benefit. As Ms. Lewis testified:

> [MWW] has designed, operated, and maintained our system to enable fire flow capacity to be available at every connection point for every wholesale customer…[I]t is something that we believe is essential to those communities being able to fight fire…

* * *

> So we can't be absolutely sure what's going to happen on their side of their borders, but we clearly maintain the capacity, and we maintain our system to be able to get that water to them on a moment's notice.

* * *

> The wholesale communities benefit from having that, if you want to call it, an insurance policy available. We are there when they need us. We will get them that water, and it is at a cost to us that we maintain that capacity. We have things sized and replaced at a capacity to be able to…deliver that water.

(Tr. Vol. 2, at 56-58).

MWW has made these investments in reliance on the Commission's consistent, reasoned analysis of the allocation of public fire protection costs. For MWW, like any other municipal public water utility that may be considering whether to provide wholesale service to its neighbors, the need for consistency has real-world implications:

> MWW makes decisions on distribution system operation and maintenance and on infrastructure investment on the basis of past practices and rulings made by the Commission. As they relate to ensuring that there is ample supply of water available at connection points of wholesale customers, these decisions are made looking at the water system as a whole and have long time horizons and large financial impacts. MWW has built and maintains capacity based on expectations of having water available for the use of wholesale utilities and remains convinced that it is in the best interest of all customers—including the retail customers of each wholesale suburb served by MWW. MWW depends on the Commission for consistency in these decisions, and appreciates the strong message that was voiced in MWW's last rate case relative to Milwaukee County and Greendale, as well as in the Kenosha decision.

(Surrebuttal-MWW-Lewis-7).

B. Allocation of Public Fire Protection Costs to the Wholesale Customers Is Consistent with Commission Precedent.

MWW's proposed allocation of public fire protection costs is consistent with the Commission-approved COSS in MWW's last rate case, 3720-WR-107, and the Commission's Final Decision in docket 2820-WR-106, *Application of Kenosha Water Utility, Kenosha County, Wisconsin, for Authority to Increase Water Rates* ("*Kenosha")* (PSC REF#:188160), and the Final Decision in docket 4310-WR-104, *Application of Oak Creek Water and Sewer Utility, Milwaukee County, Wisconsin, for Authority to Increase Water Rates* ("*Oak Creek")* (PSC REF#:168775). In MWW's last rate case, the Commission-approved COSS allocated public fire protection among all wholesale customers according to public fire flows estimated based on population served. (PSC REF#:144469, at 17). "The Wholesale Intervenors supported estimating maximum water demand for PFP based on population served, agreeing that this is an improvement over past methods of estimating." *Id.*

In the Final Decision in 3720-WR-107, the Commission explicitly rejected the arguments of Greendale and Milwaukee County that they should not bear any public fire protection costs. (PSC REF#:144469, at 17-19). In rejecting Greendale's argument, the Commission held: "Contractual limits notwithstanding, MWW makes available a reserve of water for PFP to Greendale for which Greendale is required to compensate MWW." (*Id.* at 19).

In *Kenosha*, the wholesale customer Pleasant Prairie argued that it should not be allocated public fire protection costs because it had more than enough storage to meet its fire flow demand without relying on Kenosha. (PSC REF#:188160, at 8). The Commission rejected the wholesale customer's argument, reasoning:

> Although Pleasant Prairie may have sufficient storage to meet its public fire protection demand most of the time, the Commission questions whether it has sufficient storage capacity to meet fire

> demand for a large fire that could occur during the maximum day demand and just before 8:00 p.m., when Pleasant Prairie would begin to refill its depleted storage tanks.

Id. The Commission's Final Decision in *Kenosha*, issued on July 31, 2013 and after the *Oak Creek* Final Decision, as described below, demonstrates that the *Oak Creek* public fire protection discussion is limited to the specific fact pattern involved in the Oak Creek/Franklin "contractual and operational relationships."

In arguing that they should not bear any public fire protection costs, the Wholesale Customers vaguely point to what they claim is "common national practice" not to allocate public fire protection costs to wholesale customers. (Direct-Wholesale Customers-Rothstein-24-25). However, the Commission traditionally has allocated such costs to wholesale customers. (Rebuttal-MWW-Wright-4-5; Tr. Vol. 2, at 83-84). As Mr. Wright testified, this Commission practice and precedent reflects the Commission's objective to ensure that costs are appropriately allocated to the customers who cause the cost. (Tr. Vol. 2, at 84).

C. **The Wholesale Customers Fail to Demonstrate the Factors Considered in *Oak Creek*.**

In the Final Decision in *Oak Creek*, issued July 23, 2012, the Commission decided to allocate no public fire protection costs to the Franklin Municipal Water Utility (Franklin). (PSC REF#: 168775). As discussed in Rebuttal-MWW-Wright-6-8, the Commission's decision was based on its consideration of a very specific fact pattern demonstrating that Franklin received no public fire protection benefits from the Oak Creek system "[d]ue to contractual and operational relationships." (PSC REF#: 168775, at 17). In fact, Franklin and its witnesses went to great lengths to distinguish the Oak Creek/Franklin public fire protection fact pattern from the relationship between Milwaukee and its wholesale customers. (Rebuttal-MWW-Wright-6, citing

Rebuttal-Franklin-Bennett-7-8; Ex.-MWW-Wright-5). For example, John Bennett, testifying on behalf of Franklin, stated:

> Q. How do you see Franklin as being different than the Milwaukee Water Works wholesale customers concerning the 2011 decision that the Public Service Commission made to allocate fire protection costs to wholesale despite the wholesale customers likewise having their own storage?
>
> A. A significant difference is the flow controllers that are in place for Franklin. Aside from the Village of Greendale, none of the Milwaukee wholesale customers have flow controllers in place. (Greendale's flow controllers are needed for water pressure differentials between the two systems). As Franklin's witness, Chris Kaempfer explained in his direct testimony, Oak Creek's system is limited by the flow controllers and does not provide fire flow capacity to Franklin. For the Milwaukee suburbs, there are no restrictions at the interconnection with the Milwaukee supply mains. Flows into these suburbs are limited by the hydraulic capacity of the mains and metering stations under dynamic load conditions…
>
> Q. Should the Public Service Commission include public fire protection costs in Franklin's wholesale rate because it decided that was appropriate in the Milwaukee Water Works rate case?
>
> A. As referenced above, the circumstances are not the same. I believe that supports a different conclusion to the question…

(Rebuttal-Franklin-Bennett-7-8; Ex.-MWW-Wright-5).

In addition to its ability to distinguish itself from Milwaukee's wholesale customers, Franklin demonstrated the following, which formed the basis of the Commission's decision not to allocate public fire protection costs to Franklin:

(1) Franklin had adequate storage to meet its own public fire flows under maximum day demand conditions;
(2) The wholesale contract's maximum day limit constituted a ceiling on the flow to Franklin;
(3) The flow restrictors that Franklin installed could not exceed the maximum day flow limit set forth in the wholesale contract; and
(4) Oak Creek did not have adequate facilities capable of supplying Franklin's maximum day plus fire flow demands.

(PSC REF#:168775, at 17; Ex.-MWW-Wright-7; Ex.-MWW-Pauly-1).

The Wholesale Customers argue that they, like Franklin, receive no public fire protection benefit and should not have to pay. This is ironic given that Franklin succeeded based, in large part, on its ability to distinguish its contractual and operational relationship with Oak Creek from Milwaukee's contractual and operational relationships with its wholesale customers. (Rebuttal-MWW-Wright-6). Nonetheless, the Wholesale Customers fail to establish that they meet the factors demonstrated in the *Oak Creek* rate case.

1. Wholesale Customer Storage

The Wholesale Customers' argument that they have sufficient storage to fight fires uses the most optimistic scenario: that the storage tank(s) are in service and full; pumps and transmission mains are all in service and operating optimally; that water main breaks are not draining water and pressure; and that the fire occurs when it is not a high demand time of day or year. (Surrebuttal-MWW-Lewis-4-5). However, as Ms. Lewis explained:

> Fires, by their nature, are unpredictable as to timing, location and severity. A fire in a wholesale community is not necessarily going to occur when a storage tank is full or even half full. It is not necessarily going to occur when all or even most of the water system pumping and storage components are in service and fully functional; there are any number of times when components are not available due to repair or improvement projects that are underway. There may be water main breaks that occur during a fire that deplete the water and pressure available to fight the fire, and the fire may occur at a high demand time of the day or year.

(Rebuttal-MWW-Lewis-8). The Commission, in *Kenosha*, agreed with this critique of the Wholesale Customer's argument, holding that the wholesale customer's ability to meet its public fire protection demand "most of the time" is not sufficient to establish adequate storage. (PSC REF#:188160, at 8).

2. Wholesale Service Agreements

The Wholesale Customers failed to establish that any of MWW's wholesale contracts contains a limit on flow as found in the Oak Creek/Franklin agreement. The current MWW/Greendale water service agreement specifically states that MWW guarantees an instantaneous flow rate of "not less than 5.25 MGD." (Surrebuttal-MWW-Lewis-6; Ex.-MWW-Lewis-19). The Greendale agreement is representative of the other wholesale agreements in that none of MWW's wholesale customer contracts limit the amount of water that may be drawn from MWW's system. (Surrebuttal-MWW-Lewis-6). As Ms. Lewis explained:

> The contracts define either a) the minimum pressure that is guaranteed at connection point(s) or b) the maximum flow rate available at a corresponding minimum hydraulic grade line. In the case of b), this is NOT the maximum flow rate that is available at the connection point, but a guarantee that the stated flow rate is available at or above the specified pressure.

(Surrebuttal-MWW-Lewis-6). MWW does not specifically guarantee the flow rates in the contracts because it does not have control over how the Wholesale Customers choose to design, operate, or maintain their systems. (Tr. Vol. 2, at 56-58). Nonetheless, as Ms. Lewis testified, the lack of a "guarantee" does not equate to the conclusion that fire flow capacity is not available. *See supra*, at 11-12.

The New Berlin contract cited by Mr. Kaempfer actually supports MWW's position. The contract with New Berlin is unique in that extra charges are levied in the event of demands in excess of specified limits. (Surrebuttal-MWW-Lewis-7). However, water used for fire suppression is specifically exempted from those extra charges—confirming that New Berlin expects that MWW water will be available for fire protection. (Ex.-MWW-Lewis-20).

3. Flow Restrictors

In *Oak Creek*, Franklin deliberately installed flow limiting devices designed to automatically restrict the amount of water supplied by Oak Creek to a predetermined level; i.e., the "not to exceed" flow limit of 9.52 mgd contained in the wholesale water service agreement with Oak Creek. (Rebuttal-MWW-Pauly-5; Ex.-MWW-Pauly-1). As a result, Oak Creek was physically incapable of supplying Franklin's fire flows during periods of maximum day demand. (Rebuttal-MWW-Wright-7).

In contrast, MWW has placed no such flow restrictions or limits on its wholesale customers. (Rebuttal-MWW-Pauly-5). There are flow control devices installed on the two Greendale secondary connection points. However, as Mr. Pauly explained, the devices are used to "ensure that the primary connection at 60th and Edgerton remains the primary supply point to Greendale" and to ensure that the pressures are maintained on the MWW side of the connection. (Tr. Vol. 2, at 72-73). The two flow control devices do not serve to limit the overall flow to Greendale and there is no aggregate limit on the flow from MWW to Greendale. (*Id.* at 73). MWW does not limit the flow rate at any other wholesale connection point; the flow rate at those connections is limited only by the capacity of the flow control devices that the wholesale communities chose to install. (Tr. Vol. 2, at 72). The capacities of the flow control devices are a function of the hydraulics of the distribution system and do not constitute a restriction of flow. (Rebuttal-MWW-Pauly-3)

4. MWW Has More Than Enough Capacity to Meet Each Wholesale Customer's Maximum Day Plus Fire Flow Demand.

In *Oak Creek*, Mr. Kaempfer successfully asserted that even without the contractual and physical limitations described above, Oak Creek was incapable of meeting Franklin's fire flow demand under maximum day conditions. (Rebuttal-MWW-Wright-7; Rebuttal-Franklin-

Kaempfer-7-8, Ex.-MWW-Wright-7). Specifically, Mr. Kaempfer testified that if Oak Creek had a major fire in its high pressure zone and Franklin had no fire flow capacity of its own, Franklin would be unable to engage a fire on its system with adequate capacity. (*Id.*)

Here, however, there is no doubt that MWW has more than enough capacity to meet maximum day plus fire flow demand for each of its wholesale customers. (Tr. Vol. 2, at 74; Ex.-MWW-Pauly-2). The Wholesale Customers conceded that point. (Tr. Vol. 2, at 173, 177-78).

III. THE DIFFERENTIAL RATE OF RETURN CONTINUES TO BE REASONABLE.

The continuation of the 100 basis point differential is consistent with Commission precedent and guidelines and is further supported by the risks that MWW incurs in serving its wholesale customers. In MWW's last rate case, docket 3720-WR-107, the Commission approved a 100 basis point differential rate of return for MWW. In this rate case, MWW is requesting the current PSC benchmark rate of return of 6.25% for wholesale customer classes and a rate of return of 5.25% for retail customers leading to a blended rate of return of 5.38%. It is reasonable to continue a differential of 100 basis points.

In finding the 100 basis point differential reasonable in MWW's last rate case, the Commission held:

> The American Water Works Association supports a differential return where inside city owners provides service to outside city non-owners, and the Commission has approved differential rates for other utilities.

(PSC REF#:144469, at 9).

In the Amended Final Decision in the *Oak Creek* rate case, 4310-WR-104, (PSC REF#:185284), the PSC approved the 180 basis point differential sought by Oak Creek, holding that "the Commission finds it reasonable to mitigate rates for retail customers by setting the retail rate of return lower than the wholesale rate of return by 180 basis points." (PSC REF#:185284,

at 8). The Commission reasoned that Oak Creek's requested returns were within the Commission's historical guidelines for municipal utilities. *Id.* In approving the differential, the Commission further reasoned:

> [B]ecause of the interrelationship between the municipal utility, retail ratepayer, municipality, and city electorate/taxpayer, the Commission ordinarily accommodates the municipal utility's rate of return preference if it is within the Commission's allowable range. To the extent a utility seeks a lower rate of return on net investment rate base for its retail customers, the low end of the Commission's allowable range assures that a utility can still meet its debt service obligations.

(PSC REF#:185284, at 9).

As explained in Direct-PSC-Anne Waymouth-10, in *Oak Creek*, the Commission found no compelling reason to place further limits on its historical guidelines for the differential between wholesale and retail rates of return, other than to require Commission consideration of any water rate case in which a utility requests a differential rate of return greater than 100 basis points. (PSC REF#:185284, at 9-10).

In *Kenosha*, the Commission refused to authorize a differential rate of return for Kenosha, a utility that had not previously had a differential rate of return. (PSC REF#:188160). As will be shown later in this brief, the *Kenosha* rate case breaks no new ground and is limited to the Commission's finding that the wholesale customer was a "captive customer" under the specific contractual relationship between the wholesale customer and its supplier. (Rebuttal-MWW-Brandt-6).

The 100 basis point differential is also consistent with the Commission's historical guidelines for approving differential rates of return, which were summarized by PSC staff witness Anne Waymouth. Under Wis. Stat. § 66.0811(1), a municipality owning a public utility is entitled to the same rate of return as permitted for privately-owned utilities. (Direct-PSC-

Anne Waymouth-5). Ms. Waymouth concluded that MWW's proposed composite rate of return of 5.38% is reasonable based on the application of the Commission's benchmark rate of return and that the return for the wholesale customers is also less than or equal to the Commission's benchmark rate of return. (Direct-PSC-Anne Waymouth-3). Under *Oak Creek*, PSC Staff is authorized to accept a differential of 100 basis points or less without requiring Commission review. (*Id.* at 3; PSC REF#:185284, at 9-10). While noting that the Commission is reviewing other issues in this rate case and therefore may evaluate the appropriateness of the differential rate of return, Ms. Waymouth nonetheless testified that "as the wholesale return is less than the 6.25 percent benchmark return and the differential is 100 basis points, under my standard policy I would accept it." (Direct-PSC-Anne Waymouth-3-4).

As Ms. Waymouth discussed in her direct testimony, the American Water Works Association (AWWA) *Principles of Water Rates, Fees, and Charges*, M1, Sixth Edition ("M1 Manual") discusses the differences between inside-city and outside-city customers:

> A government-owned utility may be considered to be the property of the citizens within the city. Customers within the city are owner customers who bear the risks and responsibilities of utility ownership. Inside-city customers cannot 'walk away' from the utility, and the utility has a responsibility to develop the system to serve all customers within the jurisdictional boundaries. In contrast, outside-city and wholesale customers are nonowner customers, and as such have no or different risks from the owners. As nonowners, these customers may have the option to look to other entities to provide water service for them, or may also have the option to develop their own water systems.

(Direct-PSC-Anne Waymouth-8-9).

Despite Commission precedent and past practice supporting the 100 basis point differential, the Wholesale Customers, led by Mr. Behm, assert that the differential rate of return should be eliminated because, they argue, it is a subsidy and MWW incurs no greater risk in

serving its wholesale customers. They argue that the *Kenosha* water rate case supports elimination of the differential rate of return. The Wholesale Customers' allegations do not withstand scrutiny.

The Commission has certainly never taken the position that a differential rate of return is a subsidy, as demonstrated in Ms. Waymouth's discussion of the Commission's guidance and past practices on the subject. (Direct-PSC-Anne Waymouth-10). By mitigating the retail customer rate of return below the benchmark, the differential rate of return compensates the inside city customers, who are both ratepayers and owners of the MWW system, for the investments they have made to provide service to outside city wholesale customers. (Direct-MWW-Wright-2-3). Similarly, MWW, as a first class city utility, is already required to charge a 25% surcharge to its retail suburban customers under Wis. Stat. § 62.69(2)(h). This surcharge has impacts similar to a differential rate of return. If the 100 basis point differential is discontinued, then MWW will be charging its suburban retail customers a differential, but not its wholesale customers.

Moreover, Mr. Behm is simply not credible on this point. As a consultant testifying on behalf of the Wholesale Customers, Mr. Behm opined that the differential rate of return constitutes a subsidy. (Direct-Wholesale Customers-Behm-2). However, as a member of the PSC's staff during MWW's last rate case, Behm prepared and sponsored the Cost of Service Study which contained a proposed 150-basis point differential rate of return. (Tr. Vol. 2, at 100-102).

Kenosha is easily distinguished from the facts in this case. The Commission, which had not previously considered whether a differential rate of return was appropriate for Kenosha, found that the wholesale customer Pleasant Prairie was a "captive customer" based upon the wholesale water service agreement and therefore Kenosha did

not bear significant risk in providing it with wholesale service. (PSC REF#: 188160, at 6). In reaching that decision, the Commission relied on the wholesale water service agreement, which required Pleasant Prairie to purchase its water exclusively from Kenosha in perpetuity. (*Id.*).

Mr. Behm's argument that the particular contract language in the Kenosha/Pleasant Prairie water service agreement was "not important" to the disposition of the differential rate of return is disingenuous. (Surrebuttal-Wholesale Customers-Behm-7). When testifying on behalf of Pleasant Prairie in *Kenosha*, Mr. Behm explicitly argued that Pleasant Prairie was a "captive customer" *because* of the wholesale water service agreement. (Tr. Vol. 2, at 105-107; Ex.-Wholesale Customers-Behm-6). Mr. Behm's argument, which was adopted by the Commission, focused precisely on the express terms of the contract and quoted them at length:

> Kenosha incurs no greater risk in serving Pleasant Prairie than it does in serving its retail customers. Pleasant Prairie is by contract a captive customer. The 2000 amended water issues agreement . . . provides in section 1.1 that "the Village Parties shall purchase water exclusively from the KWU and shall not operate or use an alternative water supply source or alternative water treatment plant, and shall not contract or arrange with any other person or entity for the operation or use of an alternative water supply source or alternative water treatment plant." Section 4 of the agreement provides that, in the absence of a party's breach, "the term of this Agreement is permanent." Under these circumstances, Pleasant Prairie is contractually obligated to purchase and use Kenosha water for the foreseeable future.

(Ex.-Wholesale Customers-Behm-6).

In contrast, to the Kenosha/Pleasant Prairie contract, MWW's wholesale contracts do not contain such restrictive language and are not permanent, demonstrating the increased risk associated with MWW's provision of wholesale service. (Rebuttal-MWW-Brandt-7). The very fact that Shorewood, MWW's seventh largest customer by usage in 2013, is considering changing to another water supplier demonstrates that MWW faces more risk in supplying "non

captive" wholesale customers. (Surrebuttal-MWW-Lewis-13). Because MWW's wholesale contracts are not perpetual in nature, MWW faces the risk of substantial loss of revenue and potentially stranded infrastructure should a wholesale customer leave. (Direct-MWW-Wright-3; Surrebuttal-MWW-Wright-8).

In an attempt to refute this risk, Mr. Behm argues that there is less volatility in the revenue MWW receives from wholesale sales than retail sales. (Rebuttal-Wholesale Customers-Behm-4-5). However, this line of argument has no relevance to the reasonableness of the 100 basis point differential. (Surrebuttal-MWW-Wright-7-8). "The salient issue is most definitely not climate or business cycle induced water sales revenue variability." (*Id.* at 8). The relevant point is that the wholesale customers have the potential to leave the MWW system and thus subject MWW to a significant loss of revenue and stranded infrastructure. (*Id.* at 8). As Mr. Wright testified:

> [W]holesale customers accounted for approximately 19.60% of MWW's total water sales by volume and approximately 10.83% of MWW's total water sales revenue. These are not trivial rounding errors and MWW's contracts with its wholesale customers are not perpetual in nature. The loss of even a portion of its existing wholesale customer demand would have significant negative impacts on MWW's finances and the water rates of retail customers. This is indeed a legitimate risk borne by the urban retail customer/owners of MWW's system and one for which they should receive compensation via a 100 basis point rate of return differential.

(Surrebuttal-MWW-Wright-8).

Finally, the 100 basis point differential provides a modest benefit to MWW's retail customers of approximately $365,000. (Surrebuttal-MWW-Brandt-5). This effort to mitigate the impact of the rate of return for the inside-city customers, who are both ratepayers and owners of the MWW system to reflect their added risks, imposes no great burden on the Wholesale Customers.

IV. MWW's PROPOSED METHOD OF ALLOCATING TRANSMISSION AND DISTRIBUTION MAIN COSTS IS REASONABLE.

In its COSS, MWW allocated the value of utility-financed water mains between the transmission and distribution function based on "inch-feet" (main length multiplied by main diameter) rather than on original cost. (Direct-MWW-Wright-5). MWW proposed a return to the inch-feet method of allocating transmission and distribution main costs; the method initially proposed by Mr. Behm in the last rate case and used previously in MWW rate cases since 1980. (Rebuttal-MWW-Wright-11).

MWW believes that a return to the inch-feet method is appropriate and a more equitable method of allocating main costs. The cost of repairing and replacing MWW's water mains is proportional to the size of the main as measured by inch-feet. (Surrebuttal-MWW-Wright-9).

> Inch-feet is a quantitative measurement of the physical attributes of the water mains used to meet the demands that customers place on the MWW system. The use of inch-feet as a basis for allocating MWW's investment in water mains between the transmission and distribution functions better correlates this investment to the customer demands that specific sized mains are required to meet…
>
> In addition, the purpose of allocating utility-financed mains is to appropriately allocate depreciation and return-on-investment which are used to provide funding for the rehabilitation and replacement of main infrastructure. Allocating utility financed mains based on an inch-feet basis reflects this purpose and better corresponds with the cost of the eventual replacement of main infrastructure.

(Direct-MWW-Wright-6). In contrast, the original cost method advocated by the Wholesale Customers skews the allocation costs to more recent assets due to cost escalation. (Rebuttal-MWW-Wright-12; Surrebuttal-MillerCoors-Hanser-12).

MillerCoors agrees with MWW, providing this persuasive example to make the point:

> The approach recommended by witnesses for the wholesale customers does not make sense because it uses undepreciated original cost. Thus, for example, two identical pipes installed

> decades apart would be allocated very different costs (because of inflation) even though they provide exactly the same service. In contrast, MWW's approach would treat the two pipes exactly the same. MWW's approach makes sense if the cost of maintaining, replacing and extending the pipeline network going forward involves costs that are proportional to inch-feet…"

(Rebuttal-MillerCoors-Hanser-8). Further, MillerCoors disputes Mr. Rothstein's notion that the split of historical costs between distribution and transmission is known; "Only the undepreciated historical costs are known." (Surrebuttal-MillerCoors-Hanser-11-12).

PSC Staff witness, Anne Waymouth, did not express an opinion as to which method was more equitable to ratepayers, testifying that "they both have their merits and they both have some difficulties." (Tr. Vol. 2, at 153).

Unfortunately the reasonableness of Mr. Behm's shift to original costs from inch-feet in the last rate case did not receive a full airing. As Mr. Wright explained, this was one of the unfortunate consequences of MWW's decision not to sponsor its own cost of service study in that case. (Rebuttal-MWW-Wright-11; Tr. Vol. 2, at 82-83). Following Mr. Behm's decision to move from an inch-feet allocation to an original cost allocation, this became an uncontested issue as MWW felt limited in its ability to question the wisdom of staff on this issue without having sponsored its own cost of service study. (*Id.*; Surrebuttal-MWW-Lewis-11). MWW's use of the inch-feet method in this case offers the opportunity to correct the previous shift to a less appropriate cost allocation method.

Finally, on a related issue, MillerCoors argues that MillerCoors should only be allocated costs for the portion of the distribution that it uses. (Rebuttal-MillerCoors-Hanser-9-13). The Commission rejected that argument in the MWW's last rate case: "The Commission finds that large customers receive at least an indirect benefit from smaller distribution mains. It also concludes that separating customers based on size would add to the complexity of the COSS

without significantly improving its accuracy or fairness." (PSC REF#: 144469, at 16). Unlike the inch-feet/original cost issue, the allocation of small diameter distribution mains was a contested issue and the subject of extensive testimony in the last rate case. (Surrebuttal-MWW-Wright-10). MWW continues to believe that large retail industrial customers receive at least some benefit from small diameter mains on the MWW distribution system. (Surrebuttal-MWW-Wright-11).

MillerCoors also argues that the Wholesale Customers should share in the allocation of distribution mains. (Rebuttal-MillerCoors-Hanser-9-13). Mr. Hanser reasons that if MillerCoors, as a large retail industrial customer with 8-inch meters, benefits from the redundancy of the distribution mains then the Wholesale Customers, such as West Allis (the example cited), who generally have similar sized meters, also benefit from this redundancy and should be allocated some of the costs. (Rebuttal-MillerCoors-Hanser-10-13). While this argument is compelling, it would set a precedent that the Wholesale Customers should be responsible for distribution costs; costs which MWW is not allocating. As a result, MWW would not support allocating distribution costs to the Wholesale Customers.

V. MWW's PROPOSED RATE OF RETURN IS REASONABLE AND WILL ALLOW MWW TO PERFORM NECESSARY MAIN REPLACEMENTS.

MWW should receive a return on rate base at the requested rates of return consistent with the PSC's capital-structure neutral approach. PSC staff concluded, based on the application of the Commission's benchmark return on rate base, that MWW's proposed rate of return is reasonable. (Direct-PSC-Waymouth-3). While it was not a focus of their challenge to MWW's application, the Wholesale Customers challenge the reasonableness of the proposed rate of return. (Direct-Wholesale Customers-Rothstein-17-18). The Commission should reject the Wholesale Customers' request.

The Commission's historical guidelines for establishing a reasonable rate of return include the benchmark rate of return, which consists of the cost of debt of 30-year AA municipal bonds plus two percent (200 basis points). In addition, the Commission reviews whether the proposed rate of return is sufficient to meet a minimum 1.5 times interest coverage and 1.25 times cash flow for debt service coverage. (Direct-PSC-Anne Waymouth-4). As discussed above, *supra* at 21, PSC Staff concluded that, based on these historical Commission guidelines, the composite rate of return, and its component wholesale and retail rates of return, are reasonable. (Direct-PSC-Anne Waymouth-3-4).

MWW's proposed return on rate base is reasonable and will permit MWW to maximize its main replacement efforts without having to issue additional debt. The $16 million return on rate base will be reinvested in the utility, as Ms. Waymouth discussed in Rebuttal-PSC-Anne Waymouth-2. (Surrebuttal-MWW-Brandt-8). Finally, the proposed rate of return is consistent with that of other Class AB water utilities in Wisconsin. (Rebuttal-MWW-Brandt-12-13; Ex.-MWW-Brandt-9).

CONCLUSION

In filing its rate adjustment application, MWW sought a fair and equitable rate structure. As Mr. Brandt explained, the Wholesale Customers and large retail customers have benefited from some historic inequities that, once corrected for, result in greater impacts for those customers. (Rebuttal-MWW-Brandt-16-17). Yet, MWW's application follows the data. As a prime example, the Customer Demand Study is a significant improvement over the outdated customer demand factors employed in MWW's recent rate cases. MWW expended substantial effort, over and above that which any other Wisconsin water utility has presented in any rate

case, to generate data that would better reflect the present water use of its large and diverse customer base.

The Wholesale Customers and MillerCoors have challenged MWW's application on the same issues with the intervenors taking different positions. For example, the Wholesale Customers have argued for the transmission/distribution allocation to be based on costs with Wholesale Customers getting no allocation of distribution costs, while MillerCoors has argued for the allocation to be based on inch-feet and that the Wholesale Customers should receive a portion of the distribution costs. As would be expected, each intervenor is focused on reducing its respective share of the revenue requirement.

MWW's objective is to continue providing high quality water at competitive rates to all of its customers and to recover the costs for providing this service equitably. Where appropriate, MWW has reduced impacts on its wholesale and industrial customers. For example, MWW declined to establish fixed charges on the greater of the existing charge and the calculated charge. (Direct-MWW-Brandt-14). In addition, MWW allocated the additional revenue derived from the 25% surcharge to suburban customers to the non-residential customers, alone, because the latter were subject to larger increases than the other retail customers due to the new peaking factors. (Direct-MWW-Brandt-17-18).

MWW has also attempted to submit its rate analysis to its customers in the most transparent manner. Prior to filing its application, MWW met with its wholesale and suburban customers and made adjustments to its initial analysis based on input from the wholesale customers. (Direct-MWW-Granum-4-6). In addition, MWW provided the parties and its customers with a "live" model that shows all calculations within the revenue requirements application, cost of service study, and rate design.

For the foregoing reasons, MWW respectfully requests that the Commission approve MWW's rate adjustment application.

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